HDMI® HDBaseT MATRIX
4X4 OVER SINGLE UTP (70M/230FT)

PRODUCT MANUAL

Vanco Part Number
VPW-280754

VANCO®
ADVANCING...CONNECTIVITY
powered by WyreStorm

www.vanco1.com • 888.769.4156

DEAR CUSTOMER

Thank you for purchasing this product.
For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product.
Please keep this manual for future reference.

This product is 100% inspected and tested in the United States to verify HDMI performance parameters.

WARNING

1. Do not expose this unit to water, moisture, or excessive humidity.
2. Do not install or place this unit in a built-in cabinet, or other confined space without adequate ventilation.
3. To prevent risk of electrical shock or fire hazard, due to overheating, do not obstruct unit's ventilation openings.
4. Do not install near any source of heat, including other units that may produce heat.
5. Do not place unit near flames.
6. Only clean unit with a dry cloth.
7. Unplug unit during lightening storms, or when not used for an extended period of time. A surge protector is strongly recommended.
8. Protect the power cord from being walked on or pinched, particularly at the plugs.
9. Use unit only with accessories specified by the manufacturer.
10. Refer all servicing to qualified personnel.

CAUTION

HDMI is a very complex technology requiring continuous authentication of the signal and the same video resolution and audio settings on all electronic equipment in the system. When there are multiple sources and displays, the video resolution and audio setting on all connected units must be adjusted to correspond with that of the display having the lowest video and audio capability.

FEATURES

Vanco Powered by Wyrestorm HDMI 4x4 HDBaseT (70m/230ft) Matrix is an HD 4 input/4 output switching and extension system. Have 4 sources displayed simultaneously on any display or have a single source duplicated on multiple displays, flexibility for the perfect solution. Features HDBaseT (70m/230ft) technology, which allows for audio, video, IR, and Power over Cable to be transferred over a single Cat5e/6/7 cable up to 230 feet. Simple plug and play solution that allows each output with the ability to extend HDMI signal up to 230 feet over a single category 5e or 6 cable in conjunction with the Vanco Powered by Wyrestorm HDBaseT (70m/230ft) receiver VPW-280773 (sold separately). Features additional HDMI output per UTP output for flexibility or mirroring capability, able to be utilized as an 4x8 matrix unit. With an output bandwidth of 6.75 Gbps, the VPW-280754 is capable of full 1080p HD video and HD multi-channel audio distribution with simple control using the front panel or remotely via IR Receivers at display locations. Also features EDID management system, which allows and encourages device communication compatibility for seamless integration. Includes RS232 connectivity for firmware updates or third party integration for control and switching.

Vanco Powered by WyreStorm HDMI® 4 x 4 HDBaseT (70m/230 ft) Matrix

Part # VPW-280754

- Allows any 4 HDMI input to be distributed independently and simultaneously over distances of up to 70m (230ft) to any of the 4 HD output displays connected to the matrix, regardless of HDCP encryption, with discrete IR control
- Features Duplicate HDMI ports on each UTP output for connection to HDMI sources such as an additional display (effectively doubling the outputs), AV Receiver, or alternative mode of extension
- Each HDMI port also supports DVI signals
- Each output is able to show any connected source simultaneously regardless of whether the input carries HDCP encryption
- HDCP compliant with constant feed to prevent screen drop-outs
- Reads and copies EDID from connected devices with additional EDID configuration through customizable DIP switch settings
- The same robust transmission technology as full HDBT that is far more resistant to electrostatic interference than conventional non-HDBT distribution
- HDMI v1.4 with full 3D compatibility with frame sequential (Blu-Ray) and interlaced Stereoscoptic (satellite/cable broadcasts)
- Central RS232 control – fully compatible with all market leading control systems with full integration protocols available for AMX, Control 4, Crestron, Red Eye, Nevo, RTI, Control FX, Savant, Bit Wise
- LAN control – with Control 4 LAN protocols
- Wide range, two way discrete IR control between source and display and vice versa (38 KHz to 56 KHz frequency)
- 2K resolution (compared to 4k resolution with full HDBaseT)
- 36bit Deep Color supported
- 6.75 Gbps bandwidth range/signaling rate
- 70m (230 ft) distance range of matrix/extenders under perfect transmission conditions
- Each Output port can be fed to multiple displays (cascaded)
- Supports all high definition resolutions up to and including 1080p and standard video formats
- Choose from 5 switching modes – infrared remote control, front panel buttons, local IR, IR call-back, and RS232
- Simple switching remote control included, which can also be learned into a universal remote handset to allow the control of multiple devices from one handset
- 4 x IR 3.5mm mini-jack ports for each output
- Additional infrared extension port for longer IR connections
- Dimensions: 17.3” W x 1.6” H x 6.6” D

SPECIFICATIONS

Dimensions (WxHxD): ..... 440mm / 17.3" (W) 42mm / 1.6" (H) 168mm / 6.6" (D)

Weight (Kg): ..... 2.0 Kg / 4.4lbs

Operating Temperature Range: ..... 5 to 90 % RH (no condensation)

Operating Humidity Range: ..... 0 to +35°C (32 to +95°F)

Video Amplifier Bandwidth: 6.75Gbps

Input Video Signal: ..... 0.5-1.0 volts p-p

Input DDC Signal: ..... 5 volts p-p (TTL)

Maximum Single Link Range: ..... 1080p 36bit Deep Color

Transmission distance: ..... 1080p signal up to 70m / 230ft - using VPW-280773 Display Receiver (Under perfect transmission conditions including straight cable runs with no electrical interference, bends, kinks, patch panels or wall outlets.)

Video Format Supported: ..... VESA: 640x480, 800x600,1024x768, 1280x1024, 1600x1200, 1920x1200 DTV/HDTV: 480i/576i/480p/576p/720p/1080i/1080p

Output Video: ..... HDMI v1.4 with full 3D compatibility with Frame Sequential (Blu-ray) and Interlaced Stereoscoptic (satellite/cable broadcasts)

Audio Format Supported: ..... DTS-HD Master Audio, Dolby True HD, multi-channel 5.1, 7.1, stereo

Power Supply: ..... 100-240V AC

Power Consumption: ..... 35 Watts (max.)

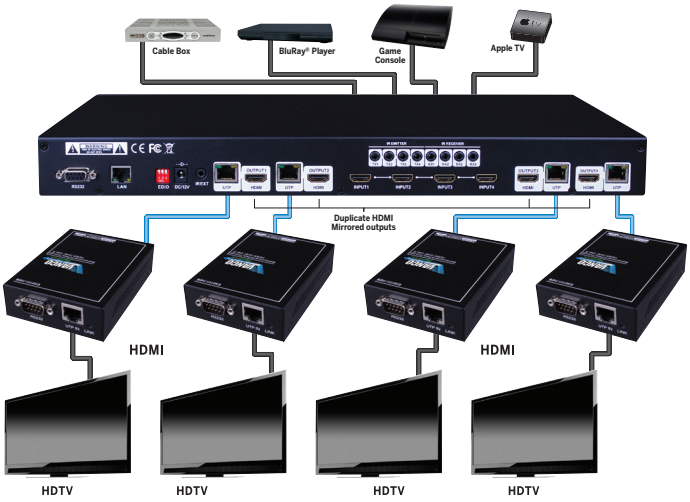
Rack Space Required: 1U

PACKAGE CONTENTS

Before attempting to use this unit, please check the packaging and make sure the following items are contained in the shipping carton:

- (1) Vanco Powered by Wyrestorm VPW-280754 Matrix Unit
- (1) Power Supply for Matrix Unit (100-240V AC)
- Product Manual
- Mounting brackets with screws
- (1) IR Remote
- (1) IR RX Extension Cable
- (4) IR TX emitters (small for input source)
- (4) IR RX receivers (larger for displays)

CONNECT AND OPERATE



1. Connect up to 4 sources such as a Blu-Ray Player, game console, A/V Receiver, Cable or Satellite Receiver, etc. to the HDMI inputs on the unit. Do not hotplug! Insert and extract cables carefully with the power SWITCHED OFF. Connecting and disconnecting while the unit is powered can result in damage to circuitry.
2. Connect the output UTP ports and/or HDMI output ports, starting with output 1, to the VPW-280773 display receivers (sold separately) (using well terminated or pre-terminated Cat5e/6 cables no longer than 230 ft)
3. If utilizing UTP, connect the output HDMI ports of the VPW-280773 display receivers (sold separately) to high-definition displays such as an HDTV or HD projector that use HDMI inputs. Note that high-speed HDMI cables are recommended for the distances that are required for each connection.
4. Plug in IR transmitters to the back of the Matrix Selector Switcher unit (IR TX), the transmitters are labeled IR TX, place in front of the IR receiver of the source, ensure that each emitter is placed in front of the IR receiver eye. Double-sided adhesive tape provided.
5. Plug in IR receivers to the port of the VPW-280773 display receivers (sold separately) ,the receivers are labeled IR RX, use provided double-sided adhesive tape to stick emitters at each display at a desired place that will receive a remote signal.
6. For power, plug in the source first, followed by the Vanco Powered by Wyrestorm Matrix Selector Switcher (power supply included), followed by the HDBaseT display receivers, followed by each output connected.
7. Power on each device in the same sequence.

At this point each display connected should display the assigned source (input 1 at default when powered on initially), scroll through each of the sources on each display to ensure everything is in working order. Use included IR remote at each display receiver to test switching function between sources and IR function itself. If a display is having difficulty receiving a signal, access the display's menu and adjust the resolution (lowest to highest until signal is displayed). A 24 Hz vertical refresh rate may work better than 60 Hz or higher. If the IR remote function is not responding, check the emitters to ensure they are placed correctly and are plugged into the correct IR jacks on the Matrix Selector Switcher unit.

FRONT PANEL

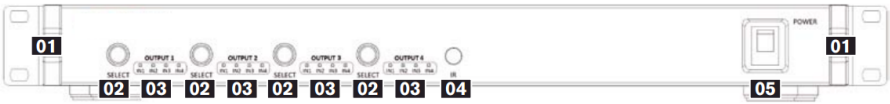
01 Mounting brackets

02 Input select button (click to scroll numerically)

03 Input selection per output (lit to show input currently selected for output)

04 IR sensor

05 Power switch



REAR PANEL

01 RS232 port*

02 LAN port*

03 EDID DIP switch (for manual EDID setting)

04 12v DC power input

05 IR Extension port (IR EXT)

06 UTP Output ports 1 – 4 (RJ45 Cat5e/6/7)

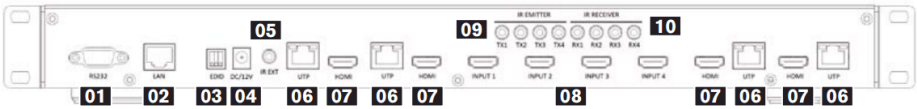
07 Duplicate HDMI Output ports 1 – 4 (mirrors UTP Outputs)

08 Input ports (HDMI)

09 IR TX Emitter ports 1 – 4 (corresponds to Inputs connected)

10 IR RX Receiver ports 1 – 4 (corresponds to Outputs connected)

*RS232 and LAN ports are for matrix control. Ensure Direct UTP cable is used to connect the LAN directly to a computer or server, and Cross UTP cable is used to connect to a computer via a router. Connection will fail if the incorrect cable is used.



BASIC OPERATION

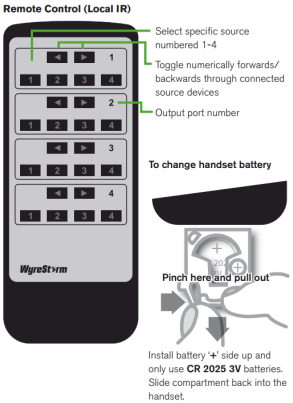
Front Panel Control

Basic switching of various source inputs to output displays can be achieved via the front panel control of the VPW-280754. Outputs are numbered 1 – 4 with an input select button to the left. Repeated pressing of the select button of a specific output scrolls numerically through the HDMI input devices connected to the matrix, with the corresponding LEDs illustrating when a device has been selected for that particular output. The chosen input will automatically store for the output so, even when the matrix is powered off and on, on resumption the last selected input/output combination will remain.

The same basic switching functions can also be accessed via the remote control.

Operation of the handset is the same regardless of location – locally (source/IR emitter) or remotely (display/IR receiver).

Simply toggle through the input sources connected to the matrix by either pressing the left/right arrow buttons or buttons numbered 1 – 4 for each output.


Remote Control (Local IR)
Select specific source numbered 1-4
Toggle numerically forwards/ backwards through connected source devices
Output port number
To change handset battery
Pinch here and pull out
Install battery '+' side up and only use CR 2025 3V batteries. Slide compartment back into the handset.

IR Extender Control

Front *Rear*

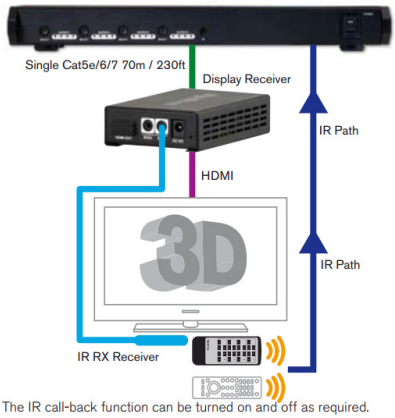
Should local control of the Matrix via the front panel IR sensor be an issue, for example if the sensor is obstructed or the unit is installed in a closed area out of infrared line of sight, the IR RX Receiver included can be inserted into the IR EXT port at the rear to extend the IR sensor range and enable local control of the matrix. Make sure the receiver itself is located with a clear line of sight to the remote handset controlling it.

IR Call-back of Matrix and Source Devices

The VPW-280754 is not only a switcher and extender of multiple HDMI signals to multiple HDMI receivers located remotely, it also passes IR control signals through the IR call-back system to the matrix and HDMI sources for full, independent control of all connected inputs from output locations.

Setting: To enable IR call-back press and hold OUTPUT 2 and OUTPUT 4 together for 3 seconds until the LED lights FLASH on OUTPUT 1 and OUTPUT 2. Call-back is now activated and control of the Matrix is now possible from remote locations.

To disable the call-back function, repeat the process until the LED lights flash again.

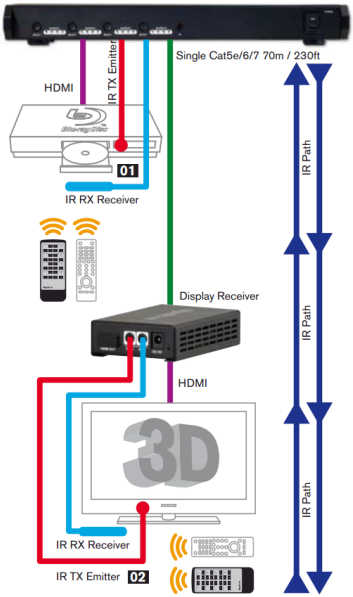


The IR call-back function can be turned on and off as required.

Two-way IR Call-back Between Matrix, Sources and Displays from Multiple Locations

A key feature on the VPW-280554 is discrete IR control of the matrix, sources and displays from any location – so inputs at the matrix end can be controlled at a display location and displays can be controlled at the matrix location. This is accomplished by placing a series of IR Emitters on devices to control and IR Receivers at all locations you wish to control from to enable the IR signal to travel both ways via the single Cat5e/6/7 cable.

01. At Matrix end: Insert the 3.5mm jacks of the IR TX Emitters included with the unit into the IR TX Emitter ports at the rear of the matrix according to input. The IR signal is added to the HDMI of the input device so, for example, if the user is watching Blu-ray on input 3, the IR signal will be directed through the IR TX3 socket to control the device.



As each IR TX port is allocated to an individual HDMI input port, if the user is unable to establish IR control of the device, care should be taken to check firstly, that the IR emitter and HDMI input ports match (Input 1-TX1, Input2-TX2 etc.) with plugs secured in correct ports, and secondly, that the IR TX emitter sensors are firmly attached directly to the front of inputs and covering infrared sensor windows of the source devices.

Some later adjustment may be needed to the location of the sensor to achieve the best performance results - sometimes moving the sensor to different areas on the source can

improve IR performance.

NOTE: Infrared receiving areas of devices can be located by shining a flashlight onto the front of the device – the sensor should be able to be seen through the plastic as a small, round object inside.

Insert 3.5mm jacks of IR RX receivers into RX ports, making sure the receivers themselves are placed in clear view to receive an infrared signal from the remote handset used to control the display outputs.

As with the IR TX, the IR RX ports are allocated to their respective UTP OUTPUT ports (Output1-RX1, Output2 -RX2) with the IR signal converted to HDMI and carried along the single Cat5e/6/7 cable.

Setting: For the Matrix to enable two-way IR control between inputs and outputs, press and hold OUTPUT 1 and OUTPUT 4 together for 3 seconds until ALL output LED lights flash, signalling the unit is in Two-way IR Mode.

Repeat the process to disable Two-way IR Mode.

02. At display end: Insert the IR RX Receiver jack into the IR RX port of the display receiver balun, with the receivers themselves placed in clear view on or near the displays to receive an infrared signal from the remote handset used to control inputs.

Insert the IR TX Emitter jack into the IR TX port of the display receiver balun, ensuring that the emitter sensor is securely attached to infrared sensor window of the display.

Follow the same connection and positioning for all baluns/displays connected to the matrix.

If all IR TX Emitters and IR RX Receivers are positioned and connected correctly with sources, displays and display receivers fully powered and the matrix set to IR call-back enabled and IR TX Swicth mode activated, two-way IR will now be possible.

Note: Misplaced or poorly secured IR Emitters and Receivers may result in intermittent IR control signals passed to and from the matrix. Check your placement and adjust if

necessary.

ADVANCED OPERATION

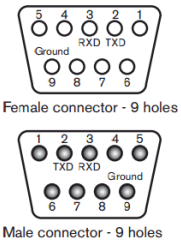
Typically, unless alternative methods of controlling the matrix are chosen or problems with device communication through the matrix encountered, basic operation is all that is required to operate your VPW-280754. However, the following information on advanced operation will detail how the matrix system can be configured and for advanced control and settings can be altered or data manually input should such problems arise, as well as configuring the system for third party control.

RS232 Remote Control

Control of the matrix is possible through RS232 using third party control systems or the dedicated COM CTL software included with your purchase (also downloadable from www.vanco1.com). RS232 and IP integration protocols are available for market leading control systems such as:

RS232 Setting

Should third party control be required, please see below for control system configuration and hex code input. The RS232 connection on the matrix is female DB9 Users can use a USB to RS232 cable or a direct male to female serial cable.



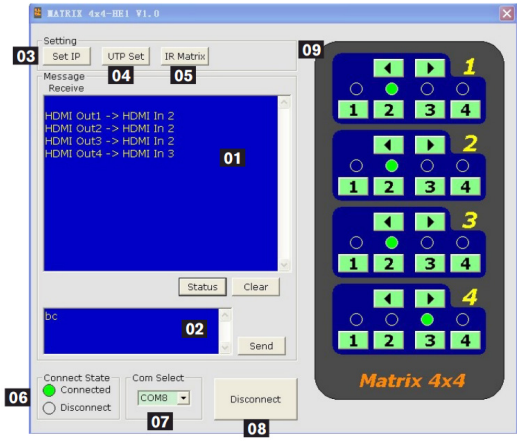
RXD Receive serial data from PC
TXD Transmit serial data to PC

Com Port Setting

Baud rate	9600bps
Data bits	8bits
Parity	None
Stop bits	1
Flow control	None

COM CTL

After fully connecting all inputs and outputs to the matrix and installing the software, on opening the program the control window will display information from the matrix, such as messages received from the switch such as input/output details, firmware version and control commands/HEX codes that allow the system to be controlled remotely, as well as buttons used to navigate the screen.



01 Receive Message Window – displays messages received from the matrix, such as input/output settings and command selections. You can view the current condition of all input/output ports by pressing the "STATUS" button.

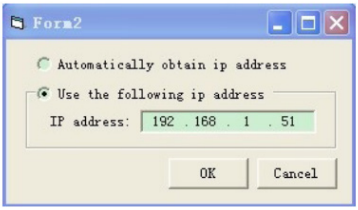
Pressing "CLEAR" will delete the previous message received in the window.

02 Send Message Window - Input your serial commands for the matrix in the Send Message Window - such as instructions for outputs or to enter update mode – and click the Send button to deliver the message to the Matrix.

Note: To see the firmware version currently used in the system – power off and repower while the matrix is connected to COM CTL. The firmware version and creation date will be displayed together with the normal output state of the matrix.

03 Set IP Button – allows you to set the IP address to be used by the system. Clicking opens a pop-up window in which you can choose to let the system automatically detect your IP address, with the result displayed in the box below. Alternatively, if the system cannot detect an IP address, select 'Use the following IP Address' and you can add manually.

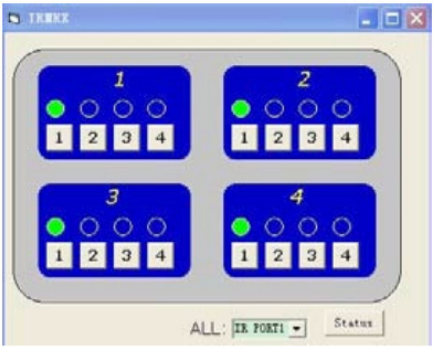
Click "OK" to complete the process or "CANCEL" to exit and return to the main screen.



04 UTP Set – Default setting is OFF for normal Matrix operation to obey device EDID/HDCP commands and high hotplug settings when outputting a signal. Switching output settings to ON instructs the matrix to output a signal regardless of device EDID/HDCP or hotplug data – such information is circumvented to encourage communication in the event of problems between sync devices.

We recommend this setting for system debugging by the installer and not for operation by the end user.

05 IR Matrix - allows IR TX HEX commands to be input manually into the matrix by input/output port



Select the IR TX port and write the IR TX HEX codes onto the device for control of that device. Select the "STATUS" button to check current settings attached to the IR port.

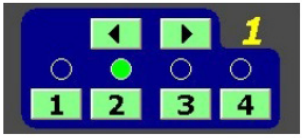
06 Com Connect State - Shows if the matrix is connected or disconnected to the Com Port and communication is enabled. Selection between ports is available by pressing the Com Port Select button. 07 When connected, the only option will be to Disconnect and vice versa. Press 08 to connect/ disconnect the matrix from the software control.

- Connected for matrix communication enabled.
- Disconnected for matrix communication disabled.

07 Com Select

08 Connect/Disconnect

Click the Com Select dropdown to see all Com ports available. Select your chosen Com port number and press the CONNECT button. You will notice the button change to show 'disconnect' and CONNECT STATE change to green for 'connected'. Pressing the button again will disconnect the Com port and the CONNECT state will show red.



09 Input/Output Switch - Switches connected inputs per output. Operation as with remote control handset – select the chosen input to be displayed on each output by either

LAN Control

The matrix can also be controlled via LAN over a network/web browser using the supplied NET CTL software or LAN protocols from third party companies, such as Control 4. As with COM CTL, install the NET CTL software included with the matrix (also downloadable from www.vanco1.com) and run the program by double-clicking NETCTL.exe

ATTENTION Use a 'straight through' ethernet cable for switch/router connection and a 'cross-over' cable for connection to a PC. Using the incorrect cable will not damage your equipment, but it may result in poor/no connection. Make sure that your LAN cable is correctly terminated and firmly connected to ports before running the software.

On initial opening, the program will first create a NETCTL.TXT file that will serve as a device backup for future use; including connection settings such as IP address and MAC address of the VPW-280754, as well as its name if you decide to change the name of your matrix (see Device Name section below). On subsequent openings, NETCTL will then search the Matrix for the saved data required for connection.

If using for the first time, the program will automatically detect the IP address being used, with the result displayed in the white area beneath.

Should no result appear or if the system is unable to detect an IP address automatically, press the "SEARCH" button to locate.

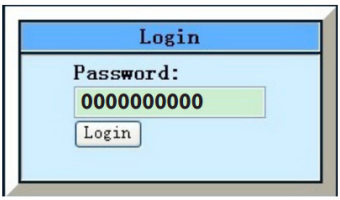
When the IP address appears, click "READ DEVICE" to attach the IP address to the system and the IP address will change to a default factory serial number MX0404-PP or MX0404-HE1.

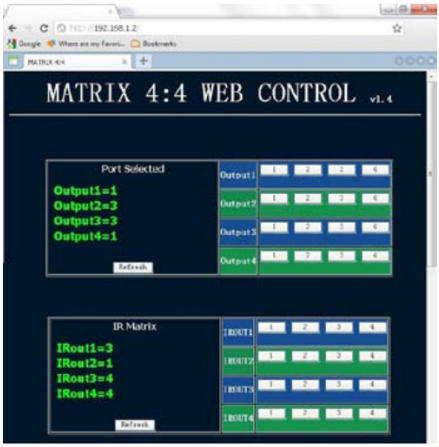
Device Name

Should you wish to change the name of your matrix from the factory default, just right click on the serial number and select 'rename' from the dropdown menu. Input the new name and press OK.

Double click on the device name/default factory serial number (or right click and OPEN) and you will be directed to a web login page in your internet browser.

Enter the default password of ten zeros 'OOOOOOOOOO' and click "LOGIN" to take you to the matrix controller screen.



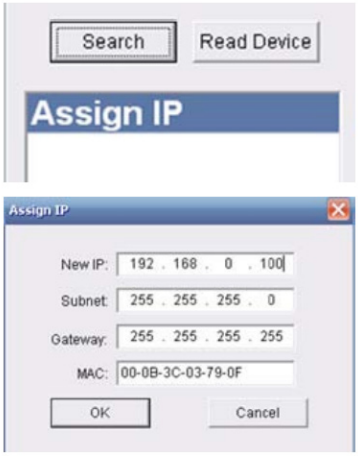


A The layout of the NET CTL controller screen includes an upper section to allocate input sources to output with the selection displayed on the left hand side.

Operation is the same as COM CTL – Inputs buttons 1-4 can be clicked to be selected per Output port.

Press the "REFRESH" button to update your chosen matrix settings into the left hand display and your selection to take effect.

B The lower section of the NET CTL controller screen is dedicated to IR matrix settings as per the COM CTL function 05 in the previous section. Making sure IR HEX codes have been correctly input into the Matrix, select the IR TX ports allocated to specific inouts/outputs to control devices remotely over the network.



Assign IP

If 'Assign IP' is displayed in the dialog box, the matrix has encountered a problem detecting an IP address and manual input of information is required. In such instances, double click 'Assign IP' or right click and choose Assign IP from the dropdown menu to add details as required.

Click "OK" to assign the new IP address to the system and you will return to the previous screen or "CANCEL" to return without changes taking effect.

Now click "SEARCH" for the Matrix to detect the new IP address, which will appear in the dialog box. Finally click "READ DEVICE" to confirm IP settings.

ATTENTION This 'Assign IP' process differs from the COM CTL 'IP Set' function. 'Set IP' in COMCTL saves/reads the IP address in flash and sets it as static IP. 'Assign IP' is only used when the system fails to obtain an IP address automatically and is NOT saved in flash.

EDID DIP Switch settings

Distribution of HD signals through the matrix requires mutual communication or 'handshake' between source and display. If there is any disparity between the two, successful transmission becomes problematic.

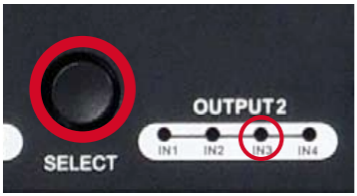
This matrix comes equipped with an EDID DIP switch for manual adjustment of matrix settings to encourage communication between INPUT and OUTPUT devices. If installation compatibility issues arise, check the settings on your connected devices and adjust the DIP settings as required.

ATTENTION Changes to the DIP switch settings should be made with the matrix OFF, ideally with all power cables and HDMI leads and UTP cables removed to guard against electrostatic build up that may damage your system. DO NOT HOTSWAP your cables when changing DIP SETTINGS.

ALL changes to the DIP settings become effective upon powering ON the matrix.

EDID Copy from Output display to Input port (Force Signal Output mode)

To copy the EDID from an OUTPUT display to a specific INPUT port, first set the DIP switch to this position. Then select the INPUT by pressing and holding the chosen OUTPUT SELECT button for 3 seconds for the EDID to be copied from the DISPLAY to the INPUT port.



AVR 7.1 Audio EDID COPY to Blu-ray source (AV Receiver copy)

For users who wish to copy EDID from an AV Receiver with 7.1 channel audio to a specific input port containing a Blu-ray player, follow a variation on the instructions above:

1 Set the DIP switch to the above position with the matrix in the OFF position.

2 Connect the AVR to your desired OUTPUT port on the matrix (for example, OUTPUT 2)

3 Power ON the matrix and select your INPUT your chosen SOURCE is connected to (for example, INPUT 3 – Blu-ray)

4 Press and hold the OUTPUT SELECT button for 3 seconds for the EDID data to be copied from OUTPUT 2 (AVR) to INPUT 3 (Blu-ray).

1080p 3D Video / Stereo Audio

1080p 3D Video / Stereo Audio

Setting the DIP switch to this position will instruct the matrix to use embedded 1080p 3D video and Stereo audio to encourage communication between the matrix and 3D sources/3D displays if handshake problems are encountered.
After setting the DIP switch, reconnect and turn on for the changes to take effect.

1080p Stereo using embedded EDID (Default factory setting)

The matrix will use embedded 1080p video and stereo audio in this DIP setting.
After setting the DIP switch, reconnect and turn on for EDID settings to take effect.

RESETTING TO FACTORY DEFAULT:

As 1080p-Stereo is the default factory setting for the matrix, to reset EDID of all ports, simply set the DIP switch to the above position when the matrix is powered OFF. On powering ON, all ports will revert to 1080p-Stereo and DIP switches can be adjusted as necessary.

1080i Stereo (using embedded EDID)

In instances where a connected display is unable to achieve 1080p resolution (such as using older or cheaper models), this DIP setting will instruct the matrix to use embedded 1080i video and stereo audio to output a signal.

After setting the DIP switch, reconnect and turn on for EDID settings to take effect.

1080p 5.1ch Audio (using embedded EDID)

When set to this DIP position the matrix will use embedded 1080p video with 5.1ch Audio.

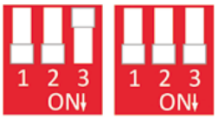
After setting the DIP switch, reconnect and turn on for EDID settings to take effect.

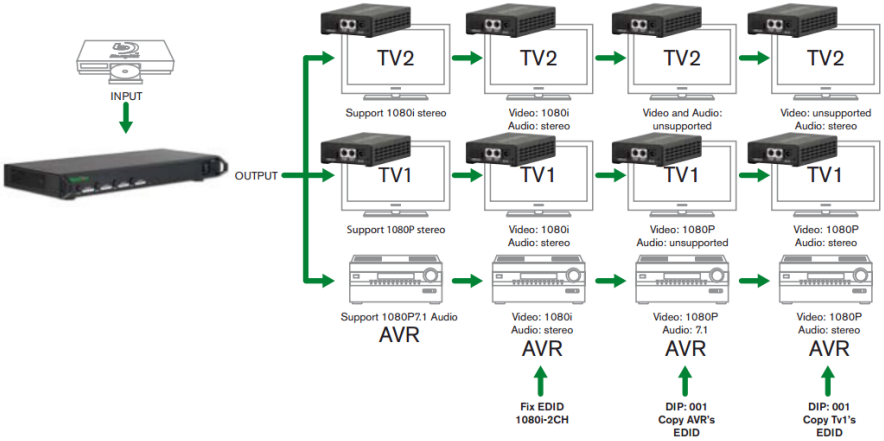
1080p 7.1ch Audio (using embedded EDID)

When set to this DIP position the matrix will use embedded 1080p video with 7.1ch Audio.

After setting the DIP switch, reconnect and turn on for EDID settings to take effect.

Remaining settings no function
(reserved for future updates)





LIABILITY STATEMENT

Every effort has been made to ensure that this product is free of defects. The manufacturer of this product cannot be held liable for the use of this hardware or any direct or indirect consequential damages arising from its use. It is the responsibility of the user and installer of the hardware to check that it is suitable for their requirements and that it is installed correctly. All rights are reserved. No parts of this manual may be reproduced or transmitted by any form or means electronic or mechanical, including photocopying, recording or by any information storage or retrieval system without the written consent of the publisher.

Manufacturer reserves the right to revise any of its hardware and software following its policy to modify and/or improve its products where necessary or desirable. This statement does not affect the legal rights of the user in any way.

LIMITED WARRANTY

With the exceptions noted in the next paragraph, Vanco warrants to the original purchaser that the equipment it manufactures or sells will be free from defects in materials and workmanship for a period of one year from the date of purchase. Should this product, in Vanco's opinion, prove defective within this warranty period, Vanco, at its option, will repair or replace this product without charge. Any defective parts replaced become the property of Vanco. This warranty does not apply to those products which have been damaged due to accident, unauthorized alterations, improper repair, modifications, inadequate maintenance and care, or use in any manner for which the product was not originally intended.

Items integrated into Vanco products that are made by other manufacturers, notably computer hard drives and liquid crystal display panels, are limited to the term of the warranty offered by the respective manufacturers. Such specific warranties are available upon request to Vanco. A surge protector, power conditioner unit, or a uninterruptible power supply must be installed in the electrical circuit to protect against power surges.

If repairs are needed during the warranty period the purchaser will be required to provide a sales receipt or other acceptable proof of purchase to the seller of this equipment. The seller will then contact Vanco regarding warranty repair or replacement.

TROUBLE-SHOOTING

1. Best results are usually achieved when the source and display resolutions are the same. If resolutions differ, the extenders will try to adjust the signal to match the resolution of the HD TV with the lowest resolution. This will result in a picture with a lower resolution on the other HD TV sets.
2. If you do not get audio and video see if you can use the “set-up” menu on the TV to adjust the audio settings and the video settings. If the HDMI control circuit can’t establish a hand-shake, then there usually will be no audio or video and a blue or black screen with a statement like “this protocol not supported” or “weak signal”.
3. If you get the above messages, re-set the Receiver by disconnecting the power supply. Alternately, you can disconnect all of the HDMI and power cables, wait 10 or 15 minutes for any voltages to decay and then connect all of the cables from the source, to the Receiver and to the display.
4. If you still have trouble, then try the “hot-plug concept. Turn-on the source and plug the HDMI cable to it and then power-up the Transmitter and plug the cable into it, then plug the output cable into the Receiver and finally turn-on the display and plug the HDMII cable from the Receiver into it. This activates all of the devices in order and results into a signal being plugged-in to a device that is on and will try to connect to the signal.
5. Most of the major player and display manufacturers employ a proprietary control channel to communicate between devices from the same manufacturer. Sometimes this can interfere with the HDMI control circuit or the authentication of the signal. Call the manufacturer if you experience this problem. Sometimes a player, an audio/video receiver, or a cable/satellite box may not have the latest software update and needs to have this downloaded from the manufacturer’s web site.

TECHNICAL SUPPORT

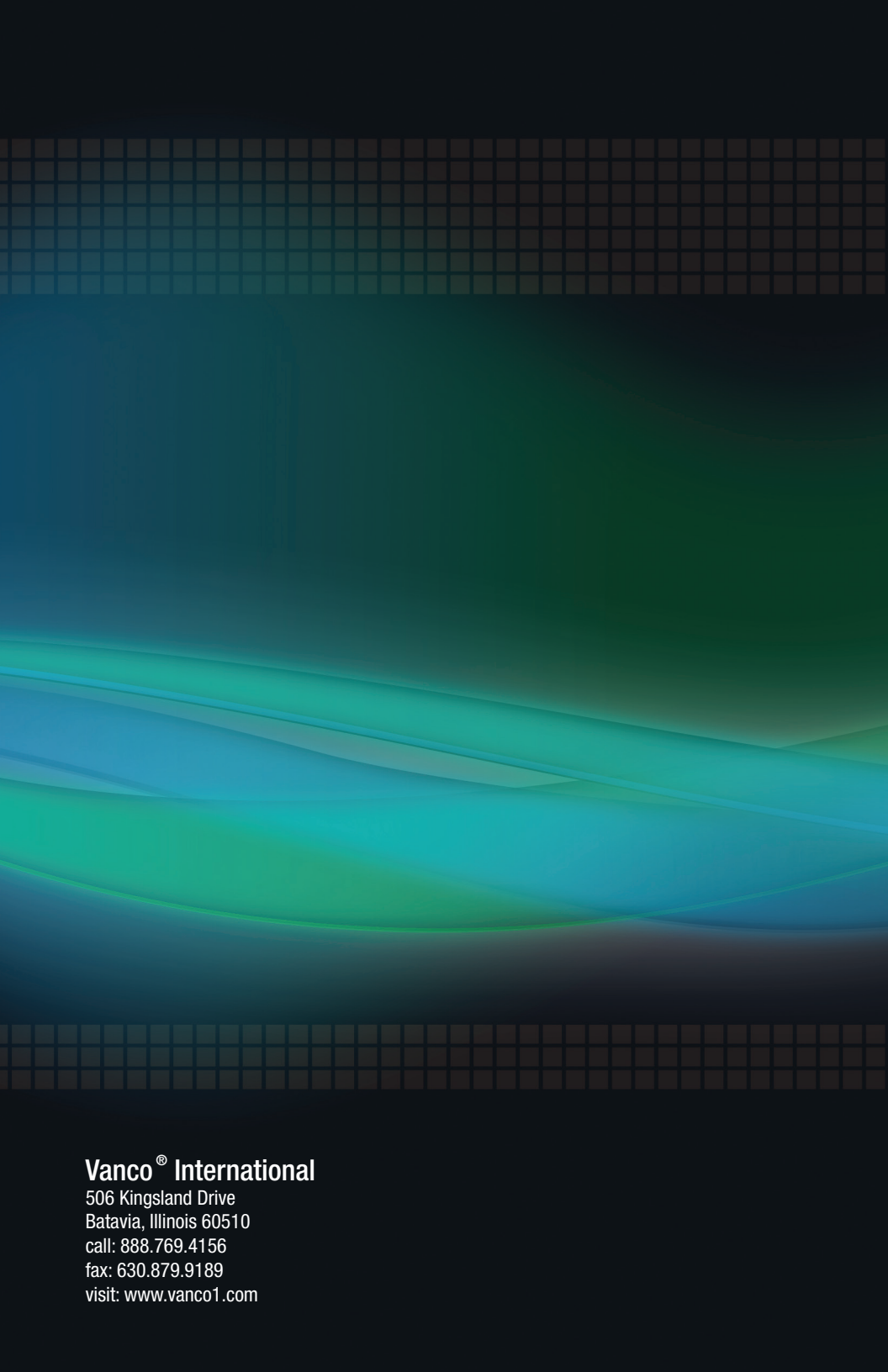
In case of problems, please contact Vanco Technical Support by dialing 1-800-626-6445 or 1-888-769-4156. You can also email technical support issues to info@vanco1.com

When calling, please have the Model Number, Serial Number (affixed to the bottom of the unit) and Invoice available for reference during the call.

Please read this Instruction Manual prior to calling or installing this unit, since it will familiarize you with the capabilities of this product and its proper installation.

All active electronic products are 100% inspected and tested to insure highest product quality and trouble-free installation and operation. The testing process utilizes the types of high-definition sources and displays typically installed for entertainment and home theater applications.

For additional information, such as helpful installation videos, glossary of terms, etc. please visit www.vanco1.com



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